

25-90

920

#5

OIEP

RAW SEQUENCE LISTING

DATE: 09/19/2001

PATENT APPLICATION: US/09/775,938A

TIME: 10:32:03

Input Set : A:\09-775938 Sequence listing.txt

Output Set: N:\CRF3\09192001\I775938A.raw

ENTERED

4 <110> APPLICANT: Haygood, M.
5 Davidson, S.K.
6 Allen, S.W.
7 Hildebrand, M.
9 <120> TITLE OF INVENTION: Bryostatins, Bryopyrans and Polyketides: Compositions and
Methods
11 <130> FILE REFERENCE: 1133.010US1
13 <140> CURRENT APPLICATION NUMBER: US 09/775,938A
C--> 14 <141> CURRENT FILING DATE: 2001-08-30
16 <150> PRIOR APPLICATION NUMBER: PCT/US00/21326
17 <151> PRIOR FILING DATE: 2000-08-04
19 <150> PRIOR APPLICATION NUMBER: US 60/147,283
20 <151> PRIOR FILING DATE: 1999-08-04
22 <160> NUMBER OF SEQ ID NOS: 38
24 <170> SOFTWARE: FastSEQ for Windows Version 4.0
26 <210> SEQ ID NO: 1
27 <211> LENGTH: 17
28 <212> TYPE: DNA
29 <213> ORGANISM: Endobugula sertula
31 <220> FEATURE:
32 <221> NAME/KEY: misc_feature
33 <222> LOCATION: (1)...(17)
34 <223> OTHER INFORMATION: N in this sequence refers to I or inosine.
36 <400> SEQUENCE: 1
W--> 37 acrtgngcrt tngtncc ✓ 17
39 <210> SEQ ID NO: 2
40 <211> LENGTH: 15
41 <212> TYPE: DNA
42 <213> ORGANISM: Endobugula sertula
44 <220> FEATURE:
45 <221> NAME/KEY: misc_feature
46 <222> LOCATION: (1)...(15)
47 <223> OTHER INFORMATION: N in this sequence refers to I or inosine.
49 <400> SEQUENCE: 2
W--> 50 ncayggnacn ggnac ✓ 15
52 <210> SEQ ID NO: 3
53 <211> LENGTH: 18
54 <212> TYPE: DNA
55 <213> ORGANISM: Endobugula sertula
57 <400> SEQUENCE: 3
58 acggacaagc gtcattac 18
61 <210> SEQ ID NO: 4
62 <211> LENGTH: 18
63 <212> TYPE: DNA
64 <213> ORGANISM: Endobugula sertula
66 <400> SEQUENCE: 4
67 acggacaagc gtcattac 18
69 <210> SEQ ID NO: 5

RAW SEQUENCE LISTING

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70 <211> LENGTH: 29
71 <212> TYPE: DNA
72 <213> ORGANISM: Endobugula sertula
74 <400> SEQUENCE: 5
75 gttgtctttg cagcatcgca tgttaccac 29
77 <210> SEQ ID NO: 6
78 <211> LENGTH: 25
79 <212> TYPE: DNA
80 <213> ORGANISM: Endobugula sertula
82 <400> SEQUENCE: 6
83 cacgcccgt atcccagcac ctacc 25
85 <210> SEQ ID NO: 7
86 <211> LENGTH: 22
87 <212> TYPE: DNA
88 <213> ORGANISM: Endobugula sertula
90 <400> SEQUENCE: 7
91 tgctatttga tgagcccgcg tt 22
93 <210> SEQ ID NO: 8
94 <211> LENGTH: 19
95 <212> TYPE: DNA
96 <213> ORGANISM: Endobugula sertula
98 <400> SEQUENCE: 8
99 catcgctgct tcgcaaccc 19
101 <210> SEQ ID NO: 9
102 <211> LENGTH: 315
103 <212> TYPE: DNA
104 <213> ORGANISM: Endobugula sertula
106 <400> SEQUENCE: 9
107 aaattgggtg atccgataga agtcgagaca ttggcagaat cgtttcgagt ctatacggac 60
108 aagcgtcatt actgtgctct ggggtcggta aaaagtaata ttggtcattt gggggtaggt 120
109 gctgggatag cgggcgtgac caaagtattg ttgtctttgc agcatcgcat gttaccaccg 180
110 acgattcatt gtgaggatgt aaacccacag attgcgttgg aaggtagccc cttttatatac 240
111 aatacgaat taaagccttg gcagtctggt gacggtatac cacgacgggc tgggtgcagt 300
112 tcttttggtg tcagt 315
114 <210> SEQ ID NO: 10
115 <211> LENGTH: 105
116 <212> TYPE: PRT
117 <213> ORGANISM: Endobugula sertula
119 <400> SEQUENCE: 10
120 Lys Leu Gly Asp Pro Ile Glu Val Glu Thr Leu Ala Glu Ser Phe Arg
121 1 5 10 15
122 Val Tyr Thr Asp Lys Arg His Tyr Cys Ala Leu Gly Ser Val Lys Ser
123 20 25 30
124 Asn Ile Gly His Leu Gly Val Gly Ala Gly Ile Ala Gly Val Thr Lys
125 35 40 45
126 Val Leu Leu Ser Leu Gln His Arg Met Leu Pro Pro Thr Ile His Cys
127 50 55 60
128 Glu Asp Val Asn Pro Gln Ile Ala Leu Glu Gly Ser Pro Phe Tyr Ile
129 65 70 75 80

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130 Asn Thr Glu Leu Lys Pro Trp Gln Ser Gly Asp Gly Ile Pro Arg Arg
131      85      90      95
132 Ala Gly Val Ser Ser Phe Gly Val Ser
133      100      105
135 <210> SEQ ID NO: 11
136 <211> LENGTH: 736
137 <212> TYPE: DNA
138 <213> ORGANISM: Endobugula sertula
140 <400> SEQUENCE: 11
141 aaattgggtg atccgataga agtcgagaca ttggcagaat cgtttcgagt ctatacggac      60
142 aagcgtcatt actgtgctct ggggtcggta aaaagtaata ttggtcattt gggggtagg      120
143 gctgggatag cgggcgtgac caaagtattg ttgtctttgc agcatcgcac gttaccaccg      180
144 acgattcatt gtgaggatgt aaacccacag attgcgttgg aaggtagccc cttttatatac      240
145 aatacgggaat taaagccttg gcagtcttgt gacggtatac cacgacgggc tgggtgcagt      300
146 tcttttggtg tcagtgttac caatgcacat cttgtattag aagaatatac tcaccgagta      360
147 acatcaccat taaaaaatac tattttaccc cagaacggtt tgtttattgt tccactatct      420
148 gcaaaaaatg atgaatgctt aaatgcttgt gtcgaacgac tgttattttt tctaaaaagc      480
149 aggcaatccg atacatataa aaaatatcc ttaagtata cagctcctat attgttagat      540
150 ttagcatata ccctccaggc cagtagggaa gcgatgacaa aacgagttgc ctttgtagtg      600
151 aaaacaacaa tagagttaat ggaaaaatta aatgcattta tagaaaaaca aaatactata      660
152 aaagcaagta atataaaaagg ttgttactac tcttcgacta aaacatcgag tccatttgat      720
153 aatgaatcga ctgatac      736
155 <210> SEQ ID NO: 12
156 <211> LENGTH: 245
157 <212> TYPE: PRT
158 <213> ORGANISM: Endobugula sertula
160 <400> SEQUENCE: 12
161 Lys Leu Gly Asp Pro Ile Glu Val Glu Thr Leu Ala Glu Ser Phe Arg
162 1      5      10      15
163 Val Tyr Thr Asp Lys Arg His Tyr Cys Ala Leu Gly Ser Val Lys Ser
164      20      25      30
165 Asn Ile Gly His Leu Gly Val Gly Ala Gly Ile Ala Gly Val Thr Lys
166      35      40      45
167 Val Leu Leu Ser Leu Gln His Arg Met Leu Pro Pro Thr Ile His Cys
168      50      55      60
169 Glu Asp Val Asn Pro Gln Ile Ala Leu Glu Gly Ser Pro Phe Tyr Ile
170 65      70      75      80
171 Asn Thr Glu Leu Lys Pro Trp Gln Ser Gly Asp Gly Ile Pro Arg Arg
172      85      90      95
173 Ala Gly Val Ser Ser Phe Gly Val Ser Gly Thr Asn Ala His Leu Val
174      100      105      110
175 Leu Glu Glu Tyr Thr His Arg Val Thr Ser Pro Leu Gln Asn Thr Ile
176      115      120      125
177 Leu Pro Gln Asn Gly Leu Phe Ile Val Pro Leu Ser Ala Lys Asn Asp
178      130      135      140
179 Glu Cys Leu Asn Ala Cys Val Glu Arg Leu Leu Phe Phe Leu Lys Ser
180 145      150      155      160
181 Arg Gln Ser Asp Thr Tyr Lys Lys Tyr Ser Leu Ser Asp Thr Ala Pro
182      165      170      175

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183 Ile Leu Leu Asp Leu Ala Tyr Thr Leu Gln Val Ser Arg Glu Ala Met
184           180           185           190
185 Thr Lys Arg Val Ala Phe Val Val Lys Thr Thr Ile Glu Leu Met Glu
186           195           200           205
187 Lys Leu Asn Ala Phe Ile Glu Lys Gln Asn Thr Ile Lys Ala Ser Asn
188           210           215           220
189 Ile Lys Gly Cys Tyr Tyr Ser Ser Thr Lys Thr Ser Ser Pro Phe Asp
190 225           230           235           240
191 Asn Glu Ser Thr Asp
192           245
194 <210> SEQ ID NO: 13
195 <211> LENGTH: 312
196 <212> TYPE: DNA
197 <213> ORGANISM: Endobugula sertula
199 <400> SEQUENCE: 13
200 cgattaggtg atccaattga attggcagca ctctcgaagg cgtttgagga gggaacacaa      60
201 cgaaaacagt ttgtcggtat cggttcagta aaatcaaata ttggatcatct ggatgttgct      120
202 gctggagtcg ttggtctgat caagacagca ttgtcgctgc agcaccgttt gttgcctccc      180
203 acgatcaact acgaagcacc caatcgggaa atcaattttg aacaatcacc ctttcattgtg      240
204 attgatgaac tcacggagtg gcgggggtcaa ggtggaccac ttcgtgctgg tgtcagctcg      300
205 ttggaattg gt                                     312
207 <210> SEQ ID NO: 14
208 <211> LENGTH: 104
209 <212> TYPE: PRT
210 <213> ORGANISM: Endobugula sertula
212 <400> SEQUENCE: 14
213 Arg Leu Gly Asp Pro Ile Glu Leu Ala Ala Leu Ser Lys Ala Phe Glu
214 1           5           10           15
215 Glu Gly Thr Gln Arg Lys Gln Phe Cys Gly Ile Gly Ser Val Lys Ser
216           20           25           30
217 Asn Ile Gly His Leu Asp Val Ala Ala Gly Val Val Gly Leu Ile Lys
218           35           40           45
219 Thr Ala Leu Ser Leu Gln His Arg Leu Leu Pro Pro Thr Ile Asn Tyr
220           50           55           60
221 Glu Ala Pro Asn Arg Glu Ile Asn Phe Glu Gln Ser Pro Phe His Val
222 65           70           75           80
223 Ile Asp Glu Leu Thr Glu Trp Arg Gly Gln Gly Gly Pro Leu Arg Ala
224           85           90           95
225 Gly Val Ser Ser Phe Gly Ile Gly
226           100
228 <210> SEQ ID NO: 15
229 <211> LENGTH: 324
230 <212> TYPE: DNA
231 <213> ORGANISM: Endobugula sertula
233 <400> SEQUENCE: 15
234 caattgggag accctattga actgcaagca ctggccgatg tgtatagagt tgataactgg      60
235 cgcaaaaaca cctgtgccct cggctcggta aaaagcaata ttggccatac ctctgcggcc      120
236 tctgggtgtg ctggtataca caaggtgctg ttatcgctta agcatcgaca attagtagcg      180
237 agcctgcatt ttaatagcgc caatcaccac ttgtattttc aacagtcgcc tttttatgtc      240

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RAW SEQUENCE LISTING

DATE: 09/19/2001

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TIME: 10:32:03

Input Set : A:\09-775938 Sequence listing.txt

Output Set: N:\CRF3\09192001\I775938A.raw

```

238 aatacccagc taaggccctg ggatcaagca gagggactag aagaaagccg ccgccgggct      300
239 gcggtcagtt cttttggtgt cagt                                           324
241 <210> SEQ ID NO: 16
242 <211> LENGTH: 108
243 <212> TYPE: PRT
244 <213> ORGANISM: Endobugula sertula
246 <400> SEQUENCE: 16
247 Gln Leu Gly Asp Pro Ile Glu Leu Gln Ala Leu Ala Asp Val Tyr Arg
248 1      5      10      15
249 Val Asp Asn Trp Arg Lys Asn Thr Cys Ala Leu Gly Ser Val Lys Ser
250      20      25      30
251 Asn Ile Gly His Thr Ser Ala Ala Ser Gly Val Ala Gly Ile His Lys
252      35      40      45
253 Val Leu Leu Ser Leu Lys His Arg Gln Leu Val Ala Ser Leu His Phe
254      50      55      60
255 Asn Ser Ala Asn His His Phe Asp Phe Gln Gln Ser Pro Phe Tyr Val
256 65      70      75      80
257 Asn Thr Gln Leu Arg Pro Trp Asp Gln Ala Glu Gly Leu Glu Glu Ser
258      85      90      95
259 Arg Arg Arg Ala Ala Val Ser Ser Phe Gly Val Ser
260      100     105
262 <210> SEQ ID NO: 17
263 <211> LENGTH: 308
264 <212> TYPE: DNA
265 <213> ORGANISM: Endobugula sertula
267 <400> SEQUENCE: 17
268 gagtatggag atccaatgga attgacggct gcagctgccg tctttggacg aggacgaaat      60
269 cagaaaaaatc gtttgctggt cggatcagta aaagccaata ttagtcacct ggaagcagcc      120
270 ggggggtathtt ctggactgat caaagcagta ctggcaatgc agcatggcgt gattccacag      180
271 caattacact gcaaagaacc gagtcctcat atccctgga aacgtctgcc tctcgatttg      240
272 gtacaagagc agactgtctg gccggaaaagt gaagagcgga tcgcggctgt aacagcgctc      300
273 gattagcg                                           308
275 <210> SEQ ID NO: 18
276 <211> LENGTH: 101
277 <212> TYPE: PRT
278 <213> ORGANISM: Endobugula sertula
280 <400> SEQUENCE: 18
281 Glu Tyr Gly Asp Pro Met Glu Leu Thr Ala Ala Ala Ala Val Phe Gly
282 1      5      10      15
283 Arg Gly Arg Asn Gln Lys Asn Arg Leu Leu Val Gly Ser Val Lys Ala
284      20      25      30
285 Asn Ile Ser His Leu Glu Ala Ala Gly Gly Ile Ser Gly Leu Ile Lys
286      35      40      45
287 Ala Val Leu Ala Met Gln His Gly Val Ile Pro Gln Gln Leu His Cys
288      50      55      60
289 Lys Glu Pro Ser Pro His Ile Pro Trp Lys Arg Leu Pro Leu Asp Leu
290 65      70      75      80
291 Val Gln Glu Gln Thr Val Trp Pro Glu Ser Glu Glu Arg Ile Ala Ala
292      85      90      95

```

Use of n and / or Xaa has been detected in the Sequence Listing. Review the Sequence Listing to ensure a corresponding explanation is present in the <220> to <223> fields of each sequence using n or Xaa.

VERIFICATION SUMMARY

DATE: 09/19/2001

PATENT APPLICATION: US/09/775,938A

TIME: 10:32:04

Input Set : A:\09-775938 Sequence listing.txt

Output Set: N:\CRF3\09192001\I775938A.raw

L:14 M:271 C: Current Filing Date differs, Replaced Current Filing Date

L:37 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:1

L:50 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:2

L:388 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:24

L:625 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:30

L:626 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:30

L:627 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:30

L:628 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:30

L:647 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:30

L:648 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:30

L:649 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:30

L:650 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:30

L:651 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:30

L:654 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:30

L:655 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:30

L:661 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:30

L:662 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:30

L:663 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:30

L:664 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:30

L:665 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:30

L:676 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:30

L:685 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:30

L:686 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:30

L:687 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:30

L:689 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:30

L:693 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:30

L:698 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:30

L:700 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:30

L:701 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:30

L:702 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:30

L:703 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:30

L:716 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:31

L:731 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:31

L:732 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:31

L:733 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:31

L:734 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:31

L:735 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:31

L:737 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:31

L:739 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:31

L:740 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:31

L:758 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:31

L:759 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:31

L:761 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:31

L:763 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:31

L:764 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:31

L:776 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:31

L:782 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:31

L:789 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:31

VERIFICATION SUMMARY

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Input Set : A:\09-775938 Sequence listing.txt

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L:796 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:31

L:797 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:31

L:799 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:31